Ng Weihan Angela

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Summary

Currently an Assistant Manager at the Infocomm Media Development Authority of Singapore, with a portfolio in the International Group an additional portfolio in Media Policy and Content. Previously, I worked as a research intern across various laboratories. My academic background includes a final-year computing project in cognitive computing and music project in algorithmic generative music. As a recipient of the Singapore Government National Science Scholarship (PhD), a life goal of mine includes pursuing a PhD in social computing or human-technology interaction. As for my career aspirations, I hope to join a national laboratory in the future, and to conduct research that can better the lives of others.

Education

MA Computing Science and Music, Honours of the First Class

Sep 2019 - May 2023

University of Glasgow with a GoAbroad at Seoul National University

Masters-level taught courses with 'A' grades:

Research Methods & Techniques, Human Computer Interaction, Human-Robot Interaction, Special Topics in Cognitive Science, Special Topics in Artificial Intelligence, Epidemiology with R and Python, Smart City Global Convergence.

Notable undergraduate-level taught courses with 'A' grades:

Computing Science Professional Skills & Issues, Sonic Arts Interacting with Sound, Keyboard Harmony, Music Analysis, Composition, Algorithmic Foundations 2, Algorithms & Data Structures, Multivariable Algebra.

Prominent Work Experiences

Infocomm Media Development Authority

Singapore

Assistant Manager, International Group (Portfolio 1) and Media Policy & Content Group (Portfolio 2)

Jun 2023 - Present

- Supporting the successful conduct of Digital Forum of Small States Executive Programme.
- Supporting the work of IMDA in international organisations, particularly the International Telecommunications Union and the Asia-Pacific Telecommunity.
- Supporting the visits of foreign delegates to Singapore.
- Classification of arts, entertainment and film submissions that are consistent with prevailing content standards.

Intern, Sectoral Transformation Group

Jun 2022 - Apr 2023

- Researched on emerging technologies such as NFTs, Digital Twin, and Blockchain.
- Studied the utility use cases of these technologies and possible implementations for Singapore businesses.
- Technology analysis of emerging technology and potential development strategies for Singapore.

Seoul National University

South Korea

Undergraduate Research Assistant, Human Factors Psychology Lab

Jan 2022 - Aug 2022

- Supervisor: Prof. Hahn Sowon.
- Research areas: Human-Robot Interaction, Emotion and Cognition, Aging and Interface Design, Affective Modeling.

Winter Research Intern, POLARIS LOC

Dec 2021 - Feb 2022

- Supervisor: Prof. Xuan-Truong Nguyen.
- Research areas: Optical Character Recognition, Optical Music Recognition.
- Notable achievement: Manuscript accepted for the IEEE Conference in Artificial Intelligence Circuits and Systems.

DSO National Laboratories

Singapore

Intern, Information Exploitation Lab

Mar 2019 - May 2019

- Supervisor: Dr. Chieu Hai Leong.
- Investigated the efficacy of prior art in topic modelling.

Honours and Awards

Skills

International / University

Communication Languages

2023	Honourable Mention, Best Individual Assessed Work
2023	The Ascent, Scottish Government Saltire Award
2023	Gold Award, GlasGOw Global Awards
2023	2nd Prize, Synthux Hackathon
2022	1st Prize, Tunku Zain Piano Trio Composition Competition
2022	JangRyeoSang Prize, POLARIS Semiconductor Innovation Festival
2021	Scholarship Recipient, Mitchell Family Travel Scholarship
2021	Grant Recipient, United Kingdom Turning Grant
2021	Best Individual Assessed Work Prize, University of Glasgow

The Ascent, Scottish Government Saltire Award

English (Native Level) Mandarin (Professional Level) Korean (Intermediate Level) Japanese (Beginner Level)

Domestic (Singapore)

2020

2014

Programming Languages

2023	Covid-19 National Resilience Medal (Individual)
2023	Covid-19 National Resilience Certificate (Team)
2021	Grant Recipient, National Arts Council SEP Grant (Research)
2020	Certificate of Appreciation (Covid-19 Support for Community), SGN
2018	Edusave Award for Achievement, Good Leadership and Service, MOE
2017	Scholarship Recipient, DSTA Junior College Scholarship
2017	People's Choice Award, IMDA-Tableau NIC Face-Off
2017	Distinction Award, Singapore Youth Festival (Symphonic Band)
2016	Gold Award, Kangaroo Mathematics Competition
2016	Bronze Award, Singapore and ASEAN Schools Mathematics Olympiad
2016	Honourable Mention Award, Singapore Mathematics Olympiad
2015	Distinction Award, Singapore Youth Festival (Symphonic Band)
2015	Bronze Award, Singapore and ASEAN Schools Mathematics Olympiad
2014	Gold Award, National Band Competition
2014	Bronze Award, Singapore and ASEAN Schools Mathematics Olympiad

Honourable Mention Award, Singapore Mathematics Olympiad

Languages: Python, Java, C, R

Frameworks

Django, React, Flask

Research, Projects and Publications

W. A. Ng. "How will your machine evaluate music? A study comparing a machine's and humans' evaluation of performed music." 2022. Level 4 Computing Honours Project. 2023. Overleaf Project.

Marker's Comment: The dissertation presents an impressive amount of work in terms of successive quantitative and qualitative experiments studying the potential of AI for musical evaluation. The experiments follow established standards and use interesting set-ups (e.g. SHAP values for assessing features importance).

W. A. Ng. "Generative Gamelan-style Music Using Pure Data (Pd)". 2023. Level 4 Sonic Arts Project. Overleaf Project.

Marker's Comment: This commentary is exemplary, a model of how to create a commentary for sonic arts at undergraduate level. The writing is clear and structured, and you outline the intention behind your project with detail but also deliberately limit its scope. Existing literature is explored and evaluated with flair and the steps taken in your project have been documented clearly. This document is of publishable quality.

- W. A. Ng. "The Words I Tried to Say". Accepted for the 24th conference of the International Society for Music Information Retrieval (ISMIR).
- **W. Ng** and X. T. Nguyen, "Improving Deep-Learning-based Optical Music Recognition for Camera-based Inputs," 2022 IEEE 4th International Conference on Artificial Intelligence Circuits and Systems (AICAS), Incheon, Korea, Republic of, 2022, pp. 118-121, doi: 10.1109/AICAS54282.2022.9869934.
- B. A. Therkelsen, W. A. Ng, J. Park, W. Li and J. Park. "Explainable Artificial Intelligence for Music". 2022. Project Website.
- W. A. Ng and J. K. Pow. "Composing Monumentality An Analysis of the Concerto of Professor Bernard Tan". 2022.
- J. W. Kong, W. A. Ng and S. Tan. "Healthycation". 2021. (currently in application for a patent)
- Yew, S., & W. A. Ng. (2020). Music as Medicine: a Literature Review on the Effectiveness of Mozart's Music on Epilepsy. Intersect: The Stanford Journal of Science, Technology, and Society, 14(1).

Extracurricular Pursuits

Student Representation

University of Glasgow Student Representative Council (2019-2023): School of Computing Science Representative, SRC Disability Equality Officer (Council Nominee), Learning & Teaching Workstream Student Representative, Periodic Subject Review Student Panel Member, RAG Committee Member, and First Year Representative.

Glasgow University Tech Society (2019-2023): President, Vice-President, Committee Member.

United Kingdom Singapore Student Council (2020-2023): Advisory Board, Vice-President, Treasure & Sponsorships Director, Technology Director.

Community Service Projects

Current Projects

Global Village for Hope (Singapore Non-Profit Organisation) (2017-Present): Operations Director, Publicity Head, Executive Committee Member.

Cyber Youth Singapore (Singapore Non-Profit Organisation) (2022-Present): Cyber Youth Collective Chief of Staff.

Google Women Techmakers (Global Advocacy Initiative) (2023-Present): Women Techmakes Ambassador, Advocacy Speaker.

Past Projects

University of Glasgow Raising and Giving (University Fundraising Project) (2019-2021): Committee Member.